



**CATV AMPLIFIER, UPWARD SIGNAL AMPLIFIER,
AND BI-DIRECTIONAL CATV SYSTEM**

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BACKGROUND OF THE INVENTION

i) Technical Field of the Invention

This invention relates to a CATV amplifier, provided on a transmission line from a center equipment of a bi-directional CATV system to terminal devices, and respectively amplifying upward signal and downward signal bi-directionally flowing through the transmission line.

ii) Description of the Related Art

Conventional CATV amplifiers are provided on a trunk connected to a center equipment, and branch lines branching from the trunk in a bi-directional CATV system. They amplify bi-directional signals flowing through the transmission lines. Such CATV amplifier (specifically, CATV trunk amplifier, CATV trunk bridger amplifier, CATV extender amplifier and CATV bridger amplifier provided on the branch lines branching from the trunk) comprises a downward amplifying circuit for amplifying downward signal transmitted from the center equipment to terminal devices, and an upward amplifying circuit for amplifying upward signal transmitted from the terminal devices to the center equipment.

In recent years, not only a conventional frequency band